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CAN ASUS' ZENBOOK UX31 COMPETE WITH THE MACBOOK AIR?

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R.I.P MeeGo
Nokia's N9

Nokia's Lumia 800
The First Real
Windows Phone?

HTC Titan
The Sweetest Mango Out?

Iyaz Akhtar's Geeky Life



Nokia does Windows Phone with Lumia, the iPod turns 10 and the 787 spreads its wings

editor's letter

Two weeks ago it was all about Apple, with that company's "Let's Talk iPhone" event that saw the 4S introduced to the world. Last week we got an eyeful of some comely Android devices, with Motorola and Samsung throwing dueling coming out parties for the Droid RAZR and Galaxy Nexus. Now it's Nokia's turn, with Espoo's finest finally and officially unveiling its Windows Phone offerings to the world. ¶ At the top of the shelf is the Lumia

800. It's a device that shares an exterior with the company's other polycarbonate-clad superphone, the N9. Inside, it turns out, it's rather different. The screen drops to 3.7-inches from 3.9, resolution falls to the Windows Phone standard 800 x 480, while a Qualcomm MSM8255 chip provides the horsepower at 1.4GHz. It has only 512MB of RAM (the N9 has 1GB), lacks NFC (which the N9 has), is available only with 16GB of internal storage (the N9 has a 64GB model) and steps down from the N9's pentaband UMTS to quadband.

That last factoid isn't much of a bother unless you were hoping to import an 800 to the US,



which you might be inclined to do, as the thing won't see an official release here until 2012. Still, we'd recommend waiting: there's talk of a Verizon LTE version to be announced at CES in January. By the way,

that's just over 70 days away as of the time of this writing.

Nokia also unveiled the Lumia 710, another Windows Phone that has a slightly lower number but the same obscene-in-Spanish prefix. (Seriously, Google it.) Where the 800 will cost nearly \$600, the 710 will cost under \$400 — despite rocking the same processor and display as the 800. It does, however, step down to a 5 megapixel camera on the back and only 8GB of storage inside.

Both devices will offer Nokia's Drive turn-by-turn navigation (which works completely offline), Mix Radio music service and ESPN Sports Hub, apps that will initially be unavailable on any other manufacturer's Windows Phone devices. The Drive navigation we understand, what with all the licensing involved in getting those maps, but it's curious to see ESPN restricting itself like this.

In non-Nokia news, Motorola confirmed the Xoom will get Ice Cream Sandwich — but didn't say exactly when. Asus teased a new Transformer, dubbed the Transformer Prime, but didn't show us much, and Samsung gave American shipping details on the Galaxy Tab 7.0: November 13th for \$400. Very tempting for tablet lovers looking for something more portable.

On the Apple front, this week we wished the iPod a happy 10th birthday. Few devices have had such an impact on their respective industries — particularly few that basically started off as big white bricks with scratch-happy chrome backs. Today's iPod is a very different beast (still prone to scratching, though), and the iPod touch was just one of two iOS 5 devices that saw Siri hacked onto it this week. The iPad was the other, both now offering a taste of voice-recognizing know-how.

A financial quarter is ending and so quite a few companies have been loading their PR blunderbusses with numbers and fired away at a teeming sea of market analysts. Netflix reportedly lost 800,000 subscribers in Q3, many of whom probably saw the on-again off-again Qwikster noise as a good reason to check out. Quite a




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few investors followed suit; the company's stock dropped a further 40%.

Amazon took a bit of a beating too, announcing that sales were up, but, curiously, income was down. Way down — 73 percent down. The company didn't give a straight reason why, but one could say that the amount of money required to develop and launch devices like the Kindle Touch and Fire must surely have played into it.

Fianlly, in transportation news, Boeing's oft-delayed, carbon-clad 787 took its first international flight, landing in Hong Kong and taxiing right into the focal range of our dedicated Engadget Chinese team. Pilots after the flight told the assembled crowd that the plane has "easy handling." Freddie Hart could not be reached for comment.

Again, in this week's Distro we'll be taking a look at the N9, an amazingly fine device running an amazingly fine OS. We'll also run you through the HTC Titan and a pair of laptops: The Dell XPS 14Z and what looks to be the best Ultrabook on the market today: the ASUS Zenbook UX31. We also have the winners of our Frankengadget competition, a new installment of IRL and a look at how Tech News Today producer and host Iyaz Akhtar grew to be the geek he is today. We think it's a particularly well-rounded issue, and we think you're going to love it. So, get comfy, and enjoy. 

TIM STEVENS
EDITOR-IN-CHIEF,
ENGADGET

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1 HOUR AGO IRL: Sony NEX-C3, Garmin Forerunner 110 and the Elgato Turbo.264 HD

3 HOURS AGO iPhone 5 to have 21Mbps HSPA+ data? China Unicom says so

30 MINS AGO **Dell confirms XPS 14z will go on sale in the US in the 'coming weeks'**
Remember that XPS 14z Dell teased at IFA? Yeah, well, it's arriving soon. As in, "the coming weeks" soon. The company just confirmed it's on the cusp of shipping here in the states, and while the outfit stopped short of giving a starting price, it's good and ready to talk specs. As we reported last month, it has the same industri...
By Dana Wollman September 29, 2011 12:35PM

54 MINS AGO **iPhone 5 cases and realistic unibody dummy show off incredible slimness**
While we're only five days away from finding out the true appearance of the next-generation iPhone, our good friends over at BENM.AT went ahead and crafted their very own unibody dummy using CAD drawings, CNC tools and a block of aluminum -- seriously, that's how they roll! Granted, this work's only based on...
By Richard Lai September 29, 2011 12:13PM

1 HOUR AGO **Kobo's Vox Android tablet appears online briefly, gets Canadian release date and pricing**
A day after another little-known e-reader manufacturer announced a tablet, a new Android slate from Kobo made a brief online appearance on Future Shop's site, only to be quickly taken down. According to the Canadian retailer, the FCC-approved tablet will offer up a 7-inch display with a 1024 x 600 resolution, WiF...
By Brian Heater September 29, 2011 11:53AM

Iceland gets a data center to call its own, still believes in fairies
You say Iceland, we immediately think Eyjafjallajökull -- and no, we haven't had a narcoleptic collapse upon these very keys. It's been over a year since that volcano swept the headlines and interrupted air travel, providing outsiders with a skewed

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This way in



PREVIEW
**Nokia
Lumia 800**

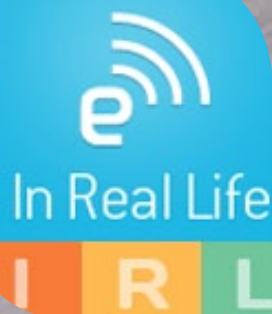
BY ZACK HONIG



HALLOWEEN SPECIAL
**They're Alive!
Your Favorite
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GROWING UP GEEK
Iyaz Akhtar

BY IYAZ AKHTAR



IN REAL LIFE
**Playseat Evolution,
HTC Thunderbolt and
a five-year-old iMac**

BY ENGADGET STAFF

EDITOR'S LETTER

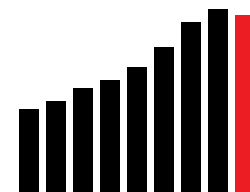
**Nokia does Windows
Phone with Lumia, the
iPod turns 10 and the
787 spreads its wings**

BY TIM STEVENS



REVIEW
**Dell
XPS 14z**

BY DANA
WOLLMAN



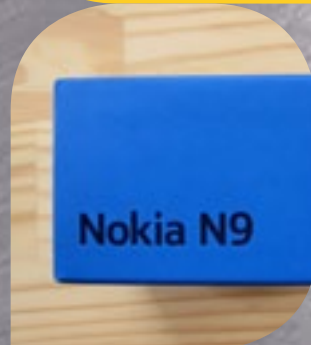
REVIEW
HTC Titan

BY SHARIF SAKR

STATS

**Netflix US subscriber
count drops**

BY RICHARD LAWLER



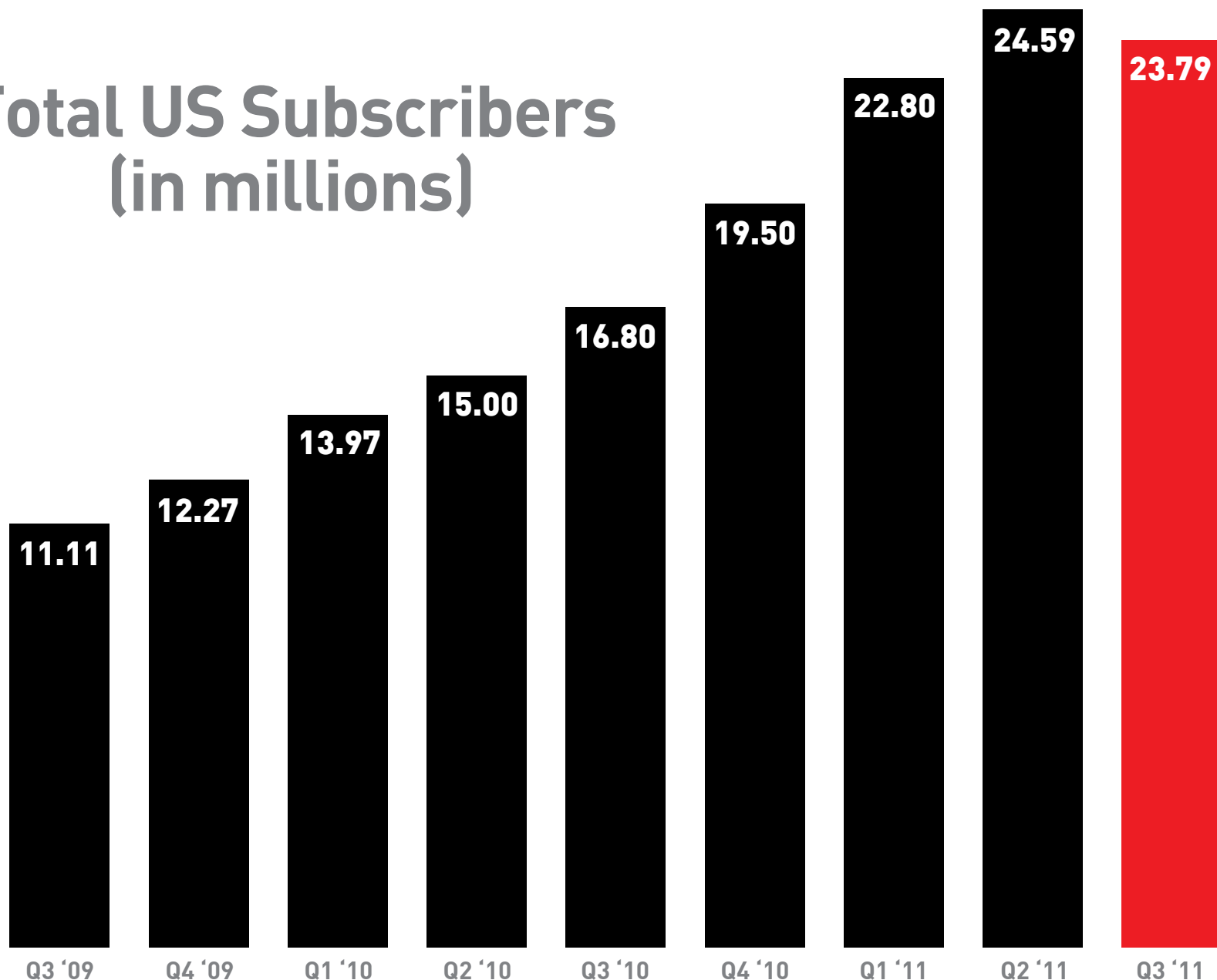
REVIEW
**ASUS
Zenbook
UX31**

BY DANA WOLLMAN

REVIEW
Nokia N9

BY MYRIAM JOIRE

Total US Subscribers (in millions)



Netflix US subscriber count drops by 800k in Q3, 21.45 million still streaming

After a tumultuous third quarter the numbers are finally in for Netflix, and as expected its price hike and Qwikster madness have cost it a few customers in the US. Currently the company is reporting a total of 23.79 million customers in the US, down from 24.59 million last quarter — fewer than even it projected a few weeks ago. According to the report, it lost more “long term” customers than expected, which it attributes, again, to its poor explanation of the reasoning behind the change. To address those decisions and its inability to reach a new deal with Starz it has a few more numbers to show, as apparently only 7 percent of new customers are opting for the \$15.98 hybrid package, while Starz Play content currently accounts for about six percent of streaming hours. Other competitors are also mentioned — Amazon Prime Instant Video’s content library is referred to as “duplicative” and just a “small fraction” of what Netflix offers, as it counts on newly-signed exclusive deals to widen the gap. — *Richard Lawler*

the weekly stat



review

Nokia N9

The Nokia N9 delivers a double punch with gorgeous hardware and brilliant software, but it's already been sent to an early grave.

BY MYRIAM JOIRE

It's taken a long time for Nokia's MeeGo-packing N9 to make its way into our top secret labs (the N9 moniker was first applied to early E7 prototypes), but it's here in our dirty little hands, at last, and it's glorious — well, as glorious as a stillborn product can be, anyway. The N9 is the latest and greatest in a long line of quirky, interesting, yet ultimately flawed touchscreen experiments from Nokia that includes the Hildon-sporting 7710, a series of Maemo-based “internet tablets” (770, N800, N810,

N900) and most recently, the N950 MeeGo handset for developers. What makes the N9 special is that it represents Nokia's last flagship phone as an independent player. MeeGo is already dead, and future high-end devices from the manufacturer will run Windows Phone and use Microsoft's services. So, is this the company's final bittersweet hurray? Did MeeGo ever stand a chance against Android, iOS and Mango? In its attempt to stay relevant, is Nokia throwing out the baby with the bathwater?



Most importantly, how does the N9 fare in today's merciless dual-core world?

Hardware

Love at first sight — *this* is possibly the most beautiful phone ever made. It's not our first hardware love affair (we're looking at you, iPhone 4S), nor likely our last, but the N9 is in a class of its own in terms of design. You've never seen anything like it, and if you think it's attractive in pictures, wait until you see it in person — it's completely and utterly irresistible. It manages to be elegant by virtue of its minimalism

yet remains unmistakably Nokia. The impeccable proportions belie the handset's 12.1mm (0.48-inch) thickness thanks to tapered ends reminiscent of its more ornate predecessor, the N8.

It all starts with a colored-through polycarbonate monolith, which is machined (not cast) to form the N9's unibody. The finish looks matte and feels similar to anodized aluminum, but is significantly more durable. Our review unit came in black but cyan and magenta versions are also available. The back is slightly convex and features an oval chrome-finished (and scratch-prone) pod that's

Love at first sight — this is possibly the most beautiful phone ever made.

flush with the body and houses the slightly recessed eight megapixel autofocus camera. A dual-LED flash is offset to the left of the lens. The front is almost all screen with no buttons, and a tiny slit for the earpiece on top. Curved Gorilla glass flows into the bezel like liquid spilling onto a flat surface. The 3.9-inch FWVGA (854 x 480) ClearBlack AMOLED display is phenomenal, rivaling Samsung's Super AMOLED — text and graphics just appear to float on the panel, further refining the experience.

You'll find a silver Nokia logo along with proximity and ambient light sensors at the top edge of the screen, and a charge indicator LED and front-facing camera at opposite ends of the bottom portion of the glass. The sides of the handset are rounded, and the right edge incorporates both a chrome volume rocker and a power / lock key. A speaker and microphone are located along the bottom, and the top side hosts a silver-rimmed 3.5mm headphone jack plus a precisely machined door protecting the micro-USB connector and flanked by

the micro SIM tray. The battery is sealed and there is no microSD card slot, but the N9 comes with either 16GB or 64GB of built-in flash storage. Fit and finish are top-notch, and the 135g (4.76oz) device feels solid and comfortable in hand, with almost the exact same footprint as the familiar iPhone 4.

Peek inside, and you'll be catapulted a year back to the glory days of TI's OMAP 3630 SoC (popularized by Motorola's once mighty Droid X), which combines a single-core 1GHz Cortex A8 CPU with a PowerVR SGX530 GPU. In the N9, this chipset is paired with 1GB of RAM, making it Nokia's highest specced phone to date, and promising to offer plenty of muscle without obliterating battery life, at least on paper (more on this later). Digging further, you'll find Nokia's signature pentaband UMTS / HSPA (14.4Mbps) 3G radio, a quad-band GSM / EDGE 2G radio for legacy networks, NFC and the usual suspects — WiFi a/b/g/n, Bluetooth 2.1 + EDR, GPS / AGPS. Strangely, there's no FM receiver or transmitter on the menu,

unlike many of Espoo's past offerings. The N9 also features a full array of sensors, including ambient light, proximity, orientation (accelerometer) and compass (magnetometer).

Not surprisingly for a Nokia phone, reception was trouble-free and calls sounded clear in our tests. We used the N9 on both T-Mobile and AT&T's 3G networks here in San Francisco and HSPA performance matched our expectations, reaching a respectable 6Mbps down and 2Mbps up in some areas. Audio quality is excellent, but the output is quieter than most other handsets when driving some headphones (like our BeyerDynamic DT990 Pro) — as for the mono speaker, it's merely adequate. Battery life is pretty decent considering the screen size, the amount of RAM and the somewhat average-sized 1,450mAh battery. The N9 ran for about 8+ hours in our rundown test, which involves playing a video in a loop. Our usage test, which simulates a light day's use, yielded an impressive 37+ hours. As such, most people will be able to enjoy this device for an entire day on a full charge.

Camera

Eight megapixel sensor, Carl Zeiss F2.2 wide-angle autofocus lens, dual-LED flash and 720p HD video recording on a flagship Nokia phone? You know where this is going. While it's no match for the legendary N8, the N9 takes wonderful pictures. Color balance and exposure are spot-on, and shots always contain a huge amount of detail, thanks in



great part to the superior optics. The sensor appears to be quite small, however, which somewhat affects dynamic range and low-light performance. Like the N8, the N9 tends to preserve detail at the expense of some noise, leaving a bit of headroom for post-processing. The flash doubles as an autofocus assist light, but we sometimes experienced problems focusing in low light, especially with distant subjects. We also noticed that the white balance is off when taking pictures with the flash — it's not a deal-breaker since the handset includes a powerful image editor with



sample
images

The N9's superior optics make for clean, balanced daytime photos, but its small sensor makes lowlight shooting less ideal. Snapping with the flash doesn't do this camera, or its subjects any favors.



an “auto-fix” option, but we hope this gets resolved with an update.

Overall, the N9’s camera interface is simple and intuitive. It provides continuous autofocus, touch-to-focus and automatic face detection, but lacks features that are quickly becoming standard on other handsets, such as panorama, burst and HDR modes. Oddly,

there’s no way to use the front-facing camera. We experienced some usability niggles, too — like other Nokia phones, some settings (like the flash) are reset to default when changing scenes, and there’s no automatic macro (you’ll have to remember to set it manually to snap closeups). While the volume rocker also doubles as a zoom control, there’s no dedicated two-stage camera button. Instead, it’s possible to hold the on-screen shutter key to lock focus and exposure, then release it to take the shot. Video is captured in HD at 720p / 30fps with stereo sound and continuous autofocus. The resulting videos are reasonably nice, but we noticed some dropped frames here and there, leaving room for improvement.

Software

MeeGo 1.2 Harmattan is such a breath of fresh air it will leave you gasping — that is, until you remember that you’re dealing with a dead man walking. It’s impossible to dismiss what’s been achieved here — a thoroughly modern, elegant, linux-based OS with inspired design that’s simple and intuitive to use, all developed in house by Nokia. Sure, it’s at least a year too late, and it lacks a strong ecosystem, but still, it gives Windows Phone a serious run for its money. For one, it ships out of the gate with copy / paste and card-based multitasking. Additionally, it integrates a plethora of on-line services right in the core of the OS.

Pull the N9 out of your pocket and





you'll notice that the screen always faintly shows the time along with any notification icons (like @ for email) — a screensaver-like feature inherited from other Nokia phones, which uses very little power thanks to the wonders of AMOLED (note that the position keeps changing to avoid display burn-in). From here, you either double-tap on the glass or push the power / lock key to see the lock screen with more detailed notifications, the date, as well as a status bar with battery and signal information. Slide your finger on a notification and you're taken directly to the right place (the actual message for email). Alternatively, swipe from any edge across the lock screen to bring up the applications view — a vertical grid of icons.

Once in the applications view, tapping any icon launches the associated app (or bookmark), while holding any icon lets you move it to another position on the grid (or remove it by pressing a little red X, if present). If you swipe across the display from the right edge, you're taken to the open applications view — a grid of cards representing running apps. Slide your finger to the left and you're



dropped into the event view, which shows the date, current weather, a list of notifications and status updates from social networks. The open applications view operates a lot like the applications view — tap to resume / maximize an app, hold to edit the grid (with that little red X again, to close apps this time). In the event view, pressing any item takes you to the right place (the calendar for the date, the Twitter or Facebook app for a status update, et cetera...)

Swiping repeatedly left or right cycles through all three views, while tapping the status bar on top allows you to set profiles (silent, beep, or ringing), adjust

Skype only handles audio calls and chat — video is missing in action, and we're still not sure which app (if any) uses the front-facing camera.

the volume, select connections and change your online status. Once inside an app, sliding your finger from any edge across the screen brings you back to whichever of the three views you started from. There's also a setting that lets you swipe down to close an app, but it's turned off by default. In-app navigation is generally achieved via a series of nested screen, back buttons and long-press menus. Speaking of apps, you'll find a whole bunch of them pre-loaded, including Ovi Music, Facebook, Twitter, AccuWeather, AP Mobile, Skype, Track & Protect, *Angry Birds Magic*, *Galaxy On Fire 2*, *Need For Speed Shift* and *Real Golf 2011*. More apps are available from Nokia's bundled app store — we installed a few helpful ones, including MeeRadio (internet radio streamer), a file manager, a voice recorder and a stopwatch / timer.

As we mentioned earlier, several major online services are seamlessly integrated into MeeGo. The first time you power up the N9, you're prompted to login with (or create) a Nokia account.

From there, the account's app supports Mail for Exchange, Skype, Google (for mail and chat), Facebook, Twitter, CalDAV, Flickr, IMAP / POP3, Picasa, SIP and YouTube. It's important to note that adding your Google account only gives you access to Gmail and Google talk — you will have to set up your Google account a second time via Mail for Exchange (and disable email sync) in order to see your contacts and calendar. But then, multiple calendars are only enabled via CalDAV — yes, this normally simple exercise is now turning into a Kafkaesque nightmare. Sigh. At least you only have to do all of this once, and the other services are easy enough to configure.

The contacts app displays information (including online status) from your friends on Facebook, Twitter and Skype. Beyond mobile networks, the dialer lets you make phone calls directly over Skype. Google, Facebook and Skype chat are all nicely integrated in the messaging app, while the gallery seamlessly handles photo / video uploads

to Facebook, Flickr, Picasa, and YouTube. Unfortunately, a few gaping holes remain. There's zero support for any of Twitter's imaging services, so we ended up using email to send our pictures to Twitpic, for example. Skype only handles audio calls and chat — video is missing in action, and we're still not sure which app (if any) uses the front-facing camera. The SIP client, perhaps?

Surfing the web on the N9 is a minimalistic affair. The HTML5-compliant, WebKit-based browser works pretty much like you'd expect, with the usual controls, including pinch-to-zoom. Each browser window appears as a separate card in the open applications view and bookmarks are stored icons in the applications view. There's no Flash support, and no browsing history beyond the ability to navigate up and down the current URL stack using the back and forward buttons. Instead, each time you open a new window you're presented with a tag cloud which contains keywords related to the sites you've already visited. Tap on a keyword, and you're taken to the appropriate site — it's all very clever.

MeeGo's email client keeps things basic. It provides a unified inbox but lacks some critical features, such as server-based search and conversation threading. There's a system-wide search app which indexes the email stored on the phone, but that's only one week's worth of messages. On the plus side, the app's layout is clean and the text is highly legible thanks to Nokia's

beautiful new font, Pure (which is used throughout the OS). The client also supports pinch-to-zoom, which is still missing from Android's own Gmail app. We'd be foolish not to mention the delightful virtual keyboard at this point — it offers unobtrusive (and defeatable) audible and tactile feedback, plus automatic word completion, when enabled.

The built-in Facebook and Twitter apps will be familiar to anyone who's used the official apps on other platforms. A pair of apps are available for maps and directions, both using Nokia's excellent in-house solution (powered by NAVTEQ). The first is similar to Maps on iOS, but adds a points-of-interest view and the ability to download maps ahead of time for offline use. Drive, the second app, reminds us of Google Navigation, with an interface optimized for in-vehicle use. Both apps work very well. As you'd expect from a modern handset, the N9 also ships with decent multimedia capabilities. The music player incorporates an Ovi Music-based recommendation engine, and the video player supports a multitude of formats including MPEG4, H.264, ASP, WMV9, VC1 and Mkv (Matroska).

In terms of performance, MeeGo generally feels quite snappy considering it's running on mid-range hardware. Memory management and multitasking appear to be solid, even with upwards of 20 cards in the open applications view. We've noticed random pauses when starting apps and when interacting rapidly with apps, possibly related

to garbage collection. It's not a major issue, but it shows that there's plenty of room left for optimizations. As a point of reference, the retail build on our N9 is significantly faster than the developer build on our prototype N950. The real question is, will Nokia bother issuing updates for a deprecated product?

Wrap-up

Nokia's really made our lives difficult here. On the one hand, the N9 delivers a double punch with gorgeous hardware and brilliant software. It's arguably the first competitive flagship phone to come out of Espoo since the launch of the original iPhone — a stunning feat when you consider how far behind the company was even just a year ago. This is the handset that puts any lingering doubts about Nokia's engineering chops to rest. We have dreams of MeeGo running on Galaxy Nexus-class superphones. Yet despite all that, it

was killed before even getting a chance to prove its worth. At least the current hardware — with its fantastic design, amazing screen and top-notch camera — will likely be reborn as the Sea Ray (guess we'll find out at Nokia World next week). Still, it's a shame about the software, because given the choice, we'd pick MeeGo over Mango, despite its weaker ecosystem. Should you buy this device? It's difficult to recommend a platform with no future, but the N9 is everything Nokia's long time fans have been waiting for, and you could have it today. MeeGo is dead — long live MeeGo.



Myriam was born wearing combat boots and holding a keyboard; moments later she picked up a soldering iron. She's been stomping, typing and hacking ever since. She's senior mobile editor at Engadget and co-host of the Engadget Mobile podcast.

BOTTOMLINE

NOKIA N9

\$650+ no contract

PROS

- Gorgeous hardware
- Brilliant software
- Impressive display, camera and battery life

CONS

- It's dead, Jim
- There's room for performance improvements
- Weak ecosystem

The Nokia N9 delivers a double punch with gorgeous hardware and brilliant software, yet it was killed before even getting a chance to prove its worth.



Growing Up Geek: Iyaz Akhtar

BY IYAZ AKHTAR

Welcome to Growing Up Geek, an ongoing feature where we take a look back at our youth and tell stories of growing up to be the nerds that we are. Today, we have a special guest: Iyaz Akhtar, current associate producer and host of Tech News Today on TWiT.tv.

My childhood home had a lot of electronics around because my Dad was a bit of a gadget guy. Every now and then, we'd go to a small electronics shop where my dad would negotiate prices and extras since he apparently knew the owners. If we bought a portable game system, we'd always get extra batteries for free. Actually, I was more interested in hooking up a couple of VCRs to copy tapes — if I remember right, a guy at the

video rental store actually explained to us how this was possible. The double-VCR monster was a bit messy with RCA cables everywhere, but it worked.

I also liked playing video games on our Atari 7800 and Nintendo. We eventually got the Sega Master System, but in our house, it was pretty much a dud. I'd play *One on One: Dr J. vs. Larry Bird*, *Contra*, and could never figure out the exact use for R.O.B. the robot. Then I

found the world of video game magazines and my eyes grew wide at all the stuff coming out in Japan so far before it did in the U.S.

When I'd go to Electronics Boutique at the mall, I'd pick up EGM and GamePro. I learned about the Mega Drive, PC Engine, and Super Famicom. When I heard PC Engine was coming to America, I was horrified to see the form factor expand as it was rebranded the "TurboGrafx 16." Seeing the Super Famicom turn into a gray and purple, boxy Super NES was also a downer. Apparently, I was a design freak even back then.

Eventually, I wound up ordering a Super Famicom and played *Super Mario World* and *ActRaiser*, even though I couldn't read anything. My parents got us a Super NES and a Sega Genesis. I was so eager to play certain games that I ordered the Japanese versions after I somehow learned you could physically modify the American machines to play the Japanese ones. I took my needle-nose pliers and ripped out pieces of plastic from the SNES so I could have one machine that played everything.

In general, I had a lot of interests that got me labeled as a geek. At various times, I was fascinated with origami, making balloon animals, learning everything I could about trees and clouds, and practicing magic tricks. I also watched a lot of television and read a lot of comic books.

My computer geekiness started by accident. My younger brother purchased a Simpsons game at a store. Once he



opened the box, he was less than thrilled to see three 1.44MB disks instead of a console cartridge. He appealed to our dad and basically said he'd like to play the game, so let's get a computer. While this may sound like a seriously weak reason to get a PC, my dad gladly used the excuse to purchase a new Tandy from Radio Shack. Not knowing anything about DOS, we had to return to Radio Shack for help. A clerk explained to us what we'd need to do and kindly wrote down every command we'd need to know to do anything in a notebook. We never did get that game to install, but that sparked something.

We eventually got to upgrade to a Tandy Sensation, which had a CD-ROM. I was fascinated by the idea of storing



video and audio on a disc — it was like the future! I didn't know it then, but the Sensation had a skin over Windows 3.1 called "Deskmate." One day, after a particularly bad crash, I was stuck in something called "Program Manager." I started asking around at school about it. My friends told me to check out computer magazines like *PC World* and *PC Magazine*.

I first got online using Prodigy. I was astonished to find that I could send messages to people in far away places like Arizona (that might as well have been Mars to me then) for no additional fee. That eventually led to me trying out different services like CompuServe and AOL. AOL was particularly interesting because it had content from *Mad Magazine* and DC Comics.

Then it was coming — Windows 95 was coming! I read about "Chicago" and its brand new interface with the Start button. I convinced my dad to take me to Staples before midnight so we could buy Windows 95 on open-

ing day. Once I got my hands on that heavy Windows 95 box, I couldn't wait to get home. I spent hours installing the operating system — back then, the OS was on 13 disks. Somewhere along my swapping of disks I noticed each disk had a capacity of larger than 1.44 MB. How was this possible? After the install, I played with the desktop and Start menu until I fell asleep.

One day while messing around on Windows 95, I clicked an icon labelled "Internet." This was different than the online world I knew through Prodigy and such. I went to CompUSA and bought Netscape Navigator for \$20 — browsers weren't free back then. I spent hours in CompUSA, Computer City, and Radio Shack staring at all kinds of things. You can upgrade your own machine? There are books to help you? You can install a CD-ROM drive?

College was a turning point. Having an email address in high school meant you were a nerd. You were required to have an email address at Boston Uni-




versity. I signed up in a computer lab where I had my first experience with Unix. The dorms had wired Ethernet and I was blown away by the speeds and ease of networking. The engineering floor had built its own private network with Ethernet taped to the ceiling with cables going to each room. On the digital music front, it was the Wild West. Napster and Scour were favorite music discovery tools.

I even started my own website on Xoom.com because it didn't have super-intrusive ads and had a quick URL. My first site had all the cliched animated gifs and noises you could ever want to experience. I eventually learned that less was more and started writing "Ramblings." It was like a blog before there were blogs. Each entry on the site was another table entry. Navigation was done via hand coding and targets.

After college, I started spending a lot of time watching a network called TechTV.

I even wrote in a question that was read on *The Screen Savers*. That led me to read and write about technology in my spare time. Through a series of unlikely events, I wound up podcasting on Wil Harris and Justin Gayner's ChannelFlip network. In turn, that helped me land a job as the editor of a tech blog. In the meantime, I had become a regular at the #Cnetfans chatroom to talk with people who were also passionate about tech.

In my adult life, I got to work at PCMag, which was a childhood dream (I didn't just say that at the interview — I meant it). In 2006, I heard a podcast called This Week in Tech and thought, "I'd like to do that someday." 5 years later, here I am working at TWiT. 

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review

Dell XPS 14z

BY DANA WOLLMAN

As far as product launches go, Dell didn't exactly rip the Band-Aid off the XPS 14z. After teasing it back in September, the company let all the specs out of the bag, but stopped short of naming a price and ship date for the United States. Well, now we know: this 14-incher will be available in the US and Canada November 1, and will start at \$1,000 — a price that puts it in direct competition with the likes of the HP Envy 14 and Sony VAIO SA series.

Like these other laptops, the 14z commands a premium over cheaper models,

with beefier specs and a (supposedly) more luxurious design. With Core i5 and i7 processor options, discrete graphics, USB 3.0 and an optional solid-state drive, it offers a lot of the same specs as its peers, though it manages to stand out in a couple key ways. One, it sports an LG Shuriken display, which crams a 14-inch screen into a chassis normally reserved for 13-inch systems (translation: its bezels are super narrow). And with a starting weight of 4.36 pounds, it's lighter than a lot of the other laptops you're probably considering. But are



XPS | 14Z



these bullet points enough to make it a smart buy? Read on to find out.

Look and feel


With the exception of that Shuriken display, the XPS 14z is essentially the XPS 15z, cut down to size. Which is to say, it bears an imperfect resemblance to a MacBook Pro. Once again, you'll find smooth aluminum surfaces, clean lines and a backlit keyboard flanked by long speaker strips. As we pointed out last time around, it even borrows Apple's tiny arrow keys and rubberized feet. Thankfully, though, Dell seems to have

heard some of our gripes about the 15z — this time, the company stacked some of the ports on the back edge, whereas the 15z crams them all on the left side. Good riddance, we say — it's an impractical enough design choice when Apple does it. Speaking of ports, Dell included HDMI, a Mini DisplayPort, Ethernet, headphone and mic ports, a 7-in-1 memory card reader and two USB ports (one 2.0, the other 3.0).

Truth be told, this isn't even the most shameless Mac impersonation we've seen (that might well be HP's Envy laptops). In addition to its magnesium alloy



... It's one of the more ergonomically sound laptops we've tested recently, even though it doesn't feel like the high-end notebook it's supposed to be.




build and little black feet, the 14z adds design flourishes that would never fly in Cupertino. For one, it has discrete touch buttons and the kind of recessed hinge that's become Dell's signature over the past few years. Additionally, it sports the same chrome accents, ridged hinge and patterned speakers / vents adorning the 15z. In conversations with Dell, company reps told us the 14z is aimed at creative types who feel the need to express their personality through their notebooks. Specifically, that means people who like a few embellishments on their \$1,000 laptop.

The peculiar thing about the 14z is that it's one of the more ergonomically sound laptops we've tested recently, even though it doesn't *feel* like the high-end notebook it's supposed to be. On the one hand, that sunken hinge means that when you rest the laptop on your lap, the weight distribution between the chassis and display feels balanced. What's more, it does a marvelous job of expelling heat — even after settling in for a few hours of work on the couch, our legs never felt the burn (we *wish* we could say the same about the MacBook Pro).

At 4.36 pounds (4.12 if you upgrade to an SSD), it feels reasonably lightweight, especially considering you get the ben-

efit of a larger display than is typically used in a laptop with these dimensions. (The 13-inch MacBook Pro weighs 4.5 pounds, for instance.) Dell also says this is the thinnest “fully functional” 14-inch laptop, at 0.9 inches (23mm) thick, though if we're being honest, we wouldn't describe it as skinny, *per se*. (Plus, uber specific superlatives are kind of silly.) It does offer clean lines, though, particularly with that hinge that makes the lid lie flat. It's also worth pointing out that even though this thing packs an 8-cell battery, it's completely flush with the system, meaning you won't find any unsightly bulges here. Then again, that battery is non-removable, which may or may not be your cup of tea.

But if one of Dell's goals was to build a premium laptop that celebrates attention to detail, it fell short. For all its aluminum and chrome trim, the 14z feels common. While you may or may not notice that it's made from multiple pieces of mag-alloy as opposed to a uni-body frame, it's difficult to ignore the palm rest and deck, which are coated in a slick, warm-to-the-touch finish. In fact, it's easy to mistake the interior for plastic — an irony, given that one of Dell's selling points here is that the entire laptop (even the bottom) is





fashioned out of metal. Meanwhile, the lower-end Inspiron 14z (\$599.99 and up) also measures a little less than an inch thick and sports a sunken hinge, 1366 x 768 display, optional backlit keyboard and a (mostly) metal chassis. It's true that the Inspiron 14z has a tray-loading optical drive and a bulge on the bottom where the battery sits, but we wish the XPS 14z made a more convincing case for why people should get this instead of the \$600 model.

Keyboard and trackpad

Though not perfect, the 14z's keyboard is one of the better ones we've been treated to lately. Unlike lots of other chiclet-style 'boards we've tested, these keys actually have some depth to them.

That extra travel means we didn't have to worry about mashing the buttons to make sure our presses registered. Depending on your tastes, though, one possible downside to that kind of tactility is that typing can get quite noisy. At least that low-pitched *click* is backed up by a sturdy, bend-free panel. The keys also have a slick finish that matches the palm rest, and while we thought that would be a problem, we banged out emails, web searches and this very review at blazing speeds, with only a handful of spelling errors slowing us down. If a reviewer's posture is any indication, picture us leaning back on a couch, legs propped up on the coffee table, with the 14z resting comfortably in our lap. A good sign, given that we've



written many a laptop review hunched over the keyboard, cursing.

And yes, to answer the question on many of your minds, this keyboard is backlit, and it is a standard feature. The white glow behind the keys is gorgeous, and goes further in making this look like a high-end machine than, say, that embellished hinge. Happily, it'll kick in regardless of whether you're working in a dark or well-lit room. It even glows when the laptop has been sitting idle for some time. And for those of you who think backlit keyboards are just a design flourish that helps justify its higher cost, you might be right — *if* you're not the kind to work through an overnight flight or wake up at the crack of dawn to pound out a 4,000-word review in your dim living room (ahem).

The best compliment we can bestow on a trackpad? We weren't aware we were using it. That was often true of the 14z, which pairs a 2 x 4-inch pad with two discrete buttons. What can we say, except that they present a completely drama-free experience? The touchpad has a smooth, low-friction surface, and everything from pinch-to-zoom to two-fingered scrolling works smoothly. And

while those twin buttons might make the 14z look slightly dated compared to laptops sporting buttonless trackpads, we'll take function over form if those seamless touchpads continue to be so unreliable. As it happens, the buttons are quite tactile. You might find them a tad mushy, even, but so long as they're easy to press, we're happy campers.

Display and sound

If you're looking for a high-res display to go with your backlit keyboard and magnesium alloy chassis, you'll be sorely disappointed. The 14z offers a 1366 x 768 panel, putting it in the same boat as the HP Envy 14 and the 13-inch MacBook Pro, whose 1280 x 800 pixel count is nothing to crow about either. Honestly, this is pretty standard fare for 13- and 14-inch laptops, though there *are* a few gems offering more pixels per inch. The ASUS Zenbook UX31 Ultrabook comes standard with a 1600 x 900 screen, as does the Sony VAIO SA, whose starting price recently dropped to \$1,000, putting it on par with the 14z and Envy 14.

But the pixel count doesn't tell the whole story. The extra screen real estate the Shuriken display provides is just glorious. Though it might seem like a trivial difference, having virtually no bezel meant we enjoyed a noticeably larger canvas than we're used to on typical 13-inch machines. You may still feel the squeeze if you use Windows 7's Snap feature to view two pages side by side, but we otherwise appreciated the broader workspace.

COMPUTER	PCMARK VANTAGE	3DMARK06	BATTERY LIFE
Dell XPS 14z (2.8GHz Core i7-2640M, Intel HD Graphics 3000 / NVIDIA GeForce GT520M 1GB)	7,982	5,414	4:54
ASUS Zenbook UX31 (1.7GHz Core i5-2557M, Intel HD Graphics 3000)	10,508	4,209	5:41
Acer Aspire Ultrabook S3 (1.6GHz Core i5-2467M, Intel HD Graphics 3000)	5,367	3,221	4:11
13-inch, 2011 MacBook Air (1.7GHz Core i5-2557M, Intel HD Graphics 3000)	9,484	4,223	5:32 (Mac OSX) / 4:12 (Windows)
Samsung Series 9 (1.7GHz Core i5-2537M, Intel HD Graphics 3000)	7,582	2,240	4:20
HP Envy 14 (2.3GHz Core i5-2410M, Intel HD Graphics 3000 / AMD Radeon HD 6630M 1GB)	6,735	7,214	3:55
Dell Inspiron 14z (2.3GHz Core i5-2410M, Intel HD Graphics 3000)	6,177	4,079	6:37
Sony VAIO SB (2.3GHz Core i5-2410M, Intel HD Graphics 3000 / AMD Radeon HD 6470M 512MB)	5,129 (stamina mode) 5,636 (speed mode)	3,609 (stamina) 5,128 (speed)	3:39 (speed) / 5:11 (stamina) Extended battery: 9:49 (speed) / 12:21 (stamina)
Lenovo ThinkPad X1 (2.5GHz Core i5-2410M, Intel HD Graphics 3000)	7,787	3,726	3:31 / 6:57 (slice battery)

Notes: the higher the score the better. For 3DMark06, the first number reflects score with GPU off, the second with it on.

As you may have gathered, we wrote much of this review in a dimly lit room, and the 200-nit display was bright enough that we never felt the strain on our eyes. The viewing angles are mixed. On the one hand, if you watch from off to the side you should be able to follow along, though as you approach an oblique 180-degree angle, the contrast predictably becomes too severe to follow along. We noticed less flex-

ibility when viewing the screen head-on, though. Even if you dip the screen forward slightly, the picture turns pale and washed-out.

Though the speakers are loud, the sound quality's pretty tinny. Not just tinny — after all, most laptops are — but also buzzy and distorted, especially at the max volume. Though the XPS 14z is marketed as a premium system, the audio is mediocre at best.

Performance and graphics

Our \$1,300 test laptop came armed with a 2.8GHz Core i7-2640M CPU, 8GB of RAM, a 750GB 7,200RPM drive and dual graphics cards, with Intel's HD 3000 on the integrated side and NVIDIA's GeForce GT520M with 1GB video memory on the discrete. Unsurprisingly, its benchmark scores generally fall below what you'd get with a system that has an SSD, but outrank machines running on Core i5 CPUs and HDDs.

Still, the 14z doesn't exactly steamroll more modestly specced laptops either. For instance, a \$1,400 configuration of the Lenovo ThinkPad X1 logged an awfully similar PCMark Vantage score, even though it has a Core i5 processor, integrated graphics and half the RAM. The 14z also boots in 53 seconds, which is reasonable for a typical Windows 7 laptop, but slower, perhaps, than what we were expecting, given the stellar components powering this thing.

And if numbers are any indication, the 14's graphics performance isn't the cream of the crop. When we reviewed the current-generation HP Envy 14, we tested a less expensive \$1,080 configuration that combined a Core i5 processor, 7,200RPM drive and dual graphics with AMD's 1GB Radeon HD 6630M on the discrete side. It costs two hundred dollars less than our XPS 14z unit and has a weaker processor to match, but managed to outperform the 14z in 3DMark06 by 1,800 points. Additionally, our 14z's 3DMark score is simi-

lar to what we got from a \$1,000 Sony VAIO SB with a Core i5 CPU, 5,400RPM drive and a Radeon HD 6470M card with just 512MB of video memory. For a configuration that costs so much more, we would have expected it to have the most graphics oomph.

All that said, the 14z can hold its own in multitasking, and ran without a hiccup while we juggled a dozen browser tabs, re-sized a group of pictures in BatchPhoto and installed a series of programs. Over a few days of using the 14z as our primary computer, we did notice it produces a fair amount of fan noise, even when left idle. It's a subtle enough sound that you won't hear it over music or a TV, but you might well if you're sitting at your desk with few other distractions in the background.

Battery life

What the 14z lacks in screaming benchmark scores, it makes up for in relatively long battery life. Under the best circumstances, Dell promises up to six hours and 42 minutes of juice. But that's for the US market, specifically. In China, Dell's promising six hours and 58 minutes of runtime. According to the footnotes in the guide that Dell sends to reviewers, it used our configuration with a Core i7 processor and 8GB of RAM to arrive at that estimate for the US market. Projected battery life for the Chinese market is based on tests with a machine that had a Core i5 CPU and 4GB of memory.

Not that we expected to hit either of

Oy. Dell's really not doing anything to combat its reputation for saddling its laptops with crapware.

those ceilings. In our standard run-down test, which involves looping a movie off the local drive with WiFi on and the brightness fixed to 65 percent, it lasted four hours and 54 minutes. Not bad when you consider the HP Envy 14 crapped out an hour earlier. Meanwhile, the VAIO SB series, another machine with dual graphics, made it three and a half hours in so-called speed mode, and lasted five hours and 11 minutes in “stamina mode,” putting it on par with the 14z.

Software

Oy. Dell's really not doing anything to combat its reputation for saddling its laptops with crapware. On board, you'll find Roxio Creator Starter, McAfee Security Center, Skype 4.2 with matching toolbars, Zinio Reader 4 and Nero SyncUp. The company also threw in a generous helping of its own software, including the Dell Stage launcher where you'll find shortcuts for music, photos, et cetera. Then there's Dell's DataSafe local and online backup, which affords you 2GB of storage, gratis.

The worst part is that it's all so intrusive. As soon as you start up the machine,

you'll be assaulted by pop-ups reminding you to back up your data, activate McAfee, update your security settings and accept Nero's EULA. We've seen PCs with minimal software loads, but it's because of systems like this that Windows machines have earned a bad rap for being stuffed with unwanted software. However, a Microsoft rep confirmed that the Microsoft Store will indeed sell a trialware-free version of the XPS 14z.

Configuration options

Though the configuration we tested rings in at \$1,300, the XPS 14z starts at \$1,000 with a 2.4GHz Core i5-2430M processor, 4GB of RAM, a 500GB 7,200RPM hard drive and integrated Intel HD 3000 graphics. From there, you can swap in the 2.8GHz Core i7 processor we tested, up to 8GB of RAM and either a 750GB 7,200RPM drive or a 256GB SSD. On the graphics side, of course, you can get that GT520M card with 1GB of video memory, and you can also elect to throw in NVIDIA's Optimus graphics-switching technology. Regardless, you will end up with an 8-cell battery and slot-loading DVD



burner (Blu-ray isn't an option here). If you're curious, a tricked-out model with a Core i7 CPU, 8GB of RAM, NVIDIA Optimus and a 256GB SSD will set you back \$1,600.

The competition

The 14z isn't alone in that space of \$1,000 laptops that command a premium for a striking design and nice performance boost. In HP's camp, there's the Envy 14, which, like the 14z, starts at \$1,000 with a 2.4GHz Core i5-2430M processor, eight-cell battery and a 500GB 7,200RPM drive. However, it packs 6GB of RAM, not four, and the standard graphics card is an AMD Radeon HD 6630 with 1GB of video memory. We'd argue it's also a more striking machine, but it's also significantly heavier, at 5.7 pounds, and with a 14.5-inch (1366 x 768) display, you're not getting *that*

much more screen real estate in return.

Moving on to Sony, the company has two 13-inch laptops — the SB series (\$800 and up) and the higher-end SA (\$1,000 and up) — that can compete with the XPS 14z. We won't dwell too much on the SB, since even the higher-end specs are fairly modest, but the SA — now, that's a fierce match for the 14z. For the starting price of \$1,000, you get the same 2.4GHz Core i5 processor that the 14z starts with, but the resolution is 1600 x 900 and the graphics card is an AMD Radeon HD 6630M with 1GB of video memory. (Then again, that model comes with a slower 5,400RPM drive.) Like the 14z, the SA is offered with the 2.8GHz Core i7 CPU we tested, though if you had the money and enthusiasm you could add a Blu-ray player and up to 1TB in solid-state storage (dual drives, mind you). With the 14z, the maximum


capacity is 750GB, and that's with an HDD; with an SSD it's just 256GB.

And what of that MacBook Pro? The 13-incher starts at a higher price — \$1,199 — and comes with more modest specs, including a 2.3GHz Core i5 processor, 4GB of RAM, integrated Intel graphics, a 1280 x 800 display and a 320GB 5,400RPM hard drive. It's well-designed with great battery life, to be sure, but no one ever said it was a bang-for-your buck laptop.

Wrap-up

We like the XPS 14z, but perhaps not for all of the reasons Dell is advertising. For all its embellishments, this doesn't feel like a premium laptop, and its performance doesn't put it ahead of the pack either. Finally, it's also one of the worst bloatware offenders we've seen in some time. Still, the XPS 14z is worth considering, but for a less glamorous

reason than Dell intended: it's simply comfortable to use.

We cranked out a lot of work on this thing. We typed thousands upon thousands of words on this laptop, and barely noticed the keyboard and trackpad — as good a sign as any that they've been designed with care. That expansive Shuriken display does indeed make a difference, while other key details like long battery life, a light build, sunken hinge and an effective heat management system make it one ergonomically sound laptop. We can think of more arresting laptops with beefier entry-level specs, such as the Envy 14 and VAIO SA, but the XPS 14z is nonetheless a sensible choice, even if it's not the fastest or prettiest. 

Dana Wollman is Reviews Editor at Engadget, a marathoner, lover of puns and a native Brooklynite.

BOTTOMLINE

Dell XPS 14z

\$1,000+

PROS

- Relatively lightweight
- Comfortable trackpad and backlit keyboard
- Healthy battery life, runs cool
- Expansive Shuriken display

CONS

- Obnoxious bloatware load
- Lackluster graphics performance for the money

The 14z offers good battery life, extra screen real estate and excellent ergonomics, though you can get stronger graphics performance from less expensive machines



Playseat Evolution, HTC Thunderbolt and a five-year-old iMac

BY ENGADGET STAFF

Welcome to IRL, an ongoing feature where we talk about the gadgets, apps and toys we're using in real life and take a second look at products that already got the formal review treatment.

Quick poll for the Android loyalists out there: anyone getting the Droid RAZR? Opting for the Galaxy Nexus instead? There's *still* one or two of us here at Engadget clinging onto our OG Droids and Nexus Ones, and after a week of high-profile handset announcements, we might be hemming and hawing for another month yet. We'll throw Michael in that boat, even though he took a chance on the Thunderbolt earlier this year and will be stuck with its battery-draining ways for at least another Revolution of the Earth. As for the rest of us not due for an upgrade, Joe is still justifying his \$350 gaming toy while Billy is bringing up Team Luddite on his five-year-old iMac. You know the drill by

now: join us as we talk about the trusty (and embarrassingly old) gear we're using in real life.

A \$350 gaming accessory

There comes a time in a virtual racer's life when desk-clamped wheels and office chairs don't cut it for an authentic feel. A few years back, my 19-year-old self was convinced of the need for a full-on racing game cockpit setup and settled on \$350 Playseat Evolution (hey, no one said I was being rational). Despite the whopping price, it's actually one of the cheaper solutions for a cockpit-style virtual racing foundation. It accommodates most major racing simulator kits, even allowing for wheels

and pedals to be bolted on for extra stability (unfortunately, I needed a huge dose of patience to assemble it). Some kits inevitably require you to drill new holes, but usually a mixture of Velcro, twist ties and elbow grease gets most any setup secured. It is easy to customize, too, thanks to a tiltable wheel plate sitting atop a vertical tube (adjustable by height and arm length), and a second tube at its base to adjust the distance between the seat and the pedal plate.

Within my first few days of use I felt the benefits — namely, how the Playseat positions you as if you're sitting in a sports car with a fixed-back Sparco seat. There's ample leg room, and during the course of long races it feels more natural than sitting on a couch or chair. It's almost like having a piece of an arcade in my home, except that it folds up when I'm done using it.

That said, I have my fair share of gripes. The backrest could use more padding, and the twist locks for the extension tubes mar the finish rather quickly. Annoyingly, the wheel pole tends to wobble slightly on hard floors, and its placement can potentially cause you to smack your ankles during aggressive pedal hits. Perhaps most frustrating is the fixed angle of the pedal plate and the need for extra parts to comply with certain accessories. Of course, there are versions selling for hundreds more that address most of these issues — funds that could be put toward pedals or a decent wheel. The Playseat Evolution is a ridiculous contraption, and at the end



of the day, I'm not ashamed to admit I own one. — *Joe Pollicino*

Staying patient with the Thunderbolt

In the beginning, my Thunderbolt was a disappointment. Those blazing download speeds I expected failed to materialize, and it wasn't just because of Ver-

izon's fledgling LTE network, either. More than once, I found myself suffering 3Mbps downloads while someone nearby with a laptop and Pantech UML290 modem was enjoying rates in excess of 20Mbps. The random reboot issue only added to my displeasure with this supposed flagship device, though a replacement handset and a software update eventually fixed the problem. Those LTE speeds also improved with time — now my Tbolt regularly hits the

5-8Mbps range, although I've never gotten the mind-blowing speeds promised.

And, I'd be remiss if I didn't mention the phone's meager battery life. At this point, I'm lucky to get four hours out of its 1400mAh cell under moderate use, and my default is to leave the LTE off until it's needed. Honestly, this shortcoming isn't that big a deal in my day-to-day, as it stays plugged in while I work. It is a problem, however, when I'm at a trade show or meeting — I find myself constantly checking the amount of juice I've got left, and must plan my schedule around when I'll next be able to recharge. I *could* buy a massive and hideous extended battery, but the Thunderbolt is portly enough as it is, thank you very much. Instead, I carry a spare battery. Hardly the end of the world, but I did have to shell out an extra \$30 for it and the phone's stubborn back plate doesn't allow for an easy swap. Yes, I realize that there's a price to be paid as an early adopter buying Big Red's inaugural LTE phone. But, I had hoped that HTC learned some lessons from the foibles that plagued the EVO 4G in its early days. Evidently, I was wrong.

It's not all bad, though. I love the ample screen with its excellent viewing angles and while it isn't as speedy as a dual-core phone, I've not found its performance lacking. Still, I lust after the saturated colors and superior outdoor viewing of an AMOLED display, and the thought of a thinner (or perhaps Nexus-flavored) phone is awfully attractive. — *Michael Gorman*





Still partying like it's... 2006?

Some people make a Mac upgrade an annual ritual. As soon as the new model's specs are rumored, they're figuring out how many extra shifts they'll need to pick up to pay for it. Not this guy. I'm still rocking the same iMac I purchased back in 2006 at the start of grad school — the 20-inch model, specifically, so that I'd have adequate screen real estate for my design work. You may recall this model — it's the first Apple all-in-one to include an Intel processor. That's right, I'm rocking a 2.0GHz Core Duo CPU that hasn't missed a beat.

For a five-year-old machine, this bad boy's still kicking pretty hard. I finally broke down and installed Snow Leopard back in the spring, but until then, I was proudly sportin' Tiger in all its

glory. Back in 2008, I took an After Effects class that forced me to upgrade to the maximum allotment of 3GB of RAM. To keep things all nice and tidy, I put in two 2GB sticks, but that was more about me being OCD than anything else.

Back in 2009, a couple months before graduation and smack dab in the middle of my thesis, the hard drive started to fail. Needing to take care of the situation quickly, I replaced the HDD myself. I upgraded there as well, going from the stock 250GB to 500GB — mostly because drives of that size got pretty cheap once terabyte models became the bee's knees. Other than the hard drive, I've had no issues and the thing still works great for a moderate to heavy graphic design workload. — *Billy Steele*





review

HTC Titan

Is this big, bold Mango phone worth its weight in gold?

BY SHARIF SAKR

We knew as soon as we first clapped eyes on this hulk of a phone that it'd make a brave purchase. It's not just the 4.7-inch screen that requires a leap of faith, but also the Windows Phone operating system, which is presented here in all its Mangofied glory but is still very much an early adopter's ecosystem. After all, if you love the Titan's hardware but prefer a more established OS, you can always wait for the Sensation XL, which is essentially the same phone running good ol' Android

and which should have a similar £480 (\$750 converted) SIM-free price tag. The question is, do you have the guts to make that jump to something more exotic? Yes? Maybe? Then read on before you begin your run-up.

Hardware

The Titan's build quality still gives us a buzz every time we pick it up. If dwarves carved a smartphone out of an alien meteorite, this is precisely how it'd look. Detach the aluminum unibody case and



it's all black and gold underneath, with exquisite molding and perfect rigidity. How far things have come since the plasticky flab of the TyTN and TyTN II, when HTC smartphones couldn't even spell out their mythical names while keeping a straight face.

The 131.5mm (5.2-inch) height and 70.7mm (2.8-inch) width might sound intimidating, but only until you realize that the Titan is a mere 5mm (0.2 inches) taller and wider than a familiar 4.3-inch smartphone like the Sensation XE. Moreover, the 160g (5.6-ounce) weight is only nine grams (0.35 ounces) heavier than the XE — a barely noticeable difference. What's more, the Titan's slim 9.9mm (0.39-inch) waistline puts the XE's 11.6mm girth to shame and goes a long way in canceling out its other excesses.

So, is the Titan's size really that big of an issue in everyday use? Only occasionally. We found that it was generally easy to forget about when tucked away in the pocket of our straight-cut jeans. On the other hand, don't count on putting your car key or credit card wallet or anything else in there — the lack of

Its dimensions might sound a touch hulking, but the Titan's build makes it feel like a much less imposing phone.

maneuverability increases the chances of a scratch, and in fact we managed to get a nasty nick after just a couple of days by making precisely this mistake, despite the Gorilla Glass screen. Aside from all this, we believe the Titan's mass is justified by the fact that it has major pay-offs in terms of how enjoyable it is to use for everyday tasks.

For the sake of thoroughness, we'd better mention a minor issue with the build quality, which shouldn't put you off unless you're really fussy: the way the core of the phone slots into the aluminum case is not quite perfect — if you squeeze the phone through its z-axis you get a slight movement. However, this flex is silent rather than creaky and hence easily forgotten.

The headset that comes with the Titan is predictably cheap and awful. HTC might be banging the Beats Audio drum with its latest Android handsets, but you'll find no Dre-approved headphones here. On the other hand, for the

sake of experimentation, we switched out the standard headset for the Your-Beats headphones that came with our Sensation XE and everything sounded great, especially when we turned on the 'Loudness' EQ in Windows Phone settings. Moral of the story? Don't worry about the lack of Beats Audio branding on this phone, just buy yourself some decent headphones if you haven't already. Artists like Kanye and Jennifer don't bust a gut for a pittance just so you can destroy their art with out-of-the-box cans.

Now for the downer: the Titan's musical abilities are severely hobbled by its lack of storage. It was disconcerting to transfer across a small sample of albums to test the music playback and discover that we'd already used up 1.5GB out of our 12.6GB allowance. Wasn't cheap and plentiful storage meant to be one of the main benefits of avoiding an iPhone? Of course, we'll one day store everything in the cloud, but that day is not yet here. Ask a ticket inspector on the London Underground whether we'll ever be able to stream Spotify tracks in the tunnels and she'll probably fine you for being obnoxious. Depending on your listening habits and music collection, the lack of a microSD

card could well be a deal-breaker.

Performance and battery life

The Titan's 1.5GHz second-gen Qualcomm Snapdragon MSM8255 may only be single-core, but it destroys HTC's older WP handsets like the 1GHz Trophy. WP Bench gave our Titan an overall score of around 96, versus just 50 for the Trophy. This superiority extended through every part of the system: the CPU completed tasks in half the time, data transfer rates were almost doubled and the GPU also delivered double the frame rates.

Is it a problem that this phone is only single-core? Nope, not unless you're really going to miss 1080p video recording. For most other tasks, the

processor will serve you just fine: sites like Engadget and the BBC rendered quickly, apps opened and closed without delay, and the voice recognition feature of Bing processed our mutterings efficiently. Nope, if you're held back by the behavior of the Titan it won't be due to the hardware so much as to Mango. The young OS still doesn't handle multitasking very well, and the browser often shows glitches in the way it lays out a website: the main BBC News page often nudged the lead picture out of its col-

Artists like Kanye and Jennifer don't bust a gut for a pittance just so you can destroy their art with out-of-the-box cans.

umn, for example, which is something we haven't witnessed on Android, iOS or even BlackBerry devices. Incidentally, the Sun Spider browsing benchmark gave the Titan a poor 6,500ms result, but we're not sure what to make of it because there's not much to compare it against: the latest Sensation XE scored around 3,500ms, but the WP7 HTC Trophy scored an unbelievable 45,000ms — so we're not sure this benchmark can handle cross-platform comparisons.

One area that definitely benefits from having just a single core is battery life, and we have no complaints about the Titan in this regard — despite the extra demands that will inevitably be made by the larger display. We put it to use all day and the 1,600mAh battery still had plenty left in reserve by the time we hit the sack. In fact, one day we forgot to plug it in overnight so we left the house with battery already at 60 percent and yet we still made it to bedtime with room to spare. We'd stop just shy of claiming two full days of low-to-moderate use — it's more like a day and a half. For the record, the WP Bench battery test gave us three hours at medium brightness, which was virtually identical to the HTC Trophy, with its meager three-inch screen and 1GHz processor.

Network performance seemed average on the UK's Three network, with 3G reception and data speeds matching other handsets we carried around. Calls sounded crisp, although we can't say we noticed much of an impact from

the Titan's secondary noise-canceling mic. Usually our environment was quiet enough for it not to be necessary, or so loud that any beneficial effect was drowned out — but we can believe it'd make a difference in certain situations.

Display

The Titan's WVGA resolution equates to just 198 pixels per inch. No matter how much HTC tries to gloss over this issue, the fact remains that those pixels are visible on text and vector graphics (although not so much on photos), and they do nothing to add to the otherwise delightful aesthetics of the OS. Zooming out on a webpage quickly causes the text to become blocky and unreadable, which partially cancels out the large panel's ability to display vast swathes of a page in one go.

Arguably, this isn't HTC's fault, because 480 x 800 happens to be the resolution currently required by Windows Phone. Microsoft clearly just wants to keep things simple at this stage, and in any case it's looking at Windows 8 for the tablet form factor, so it's made no room for diverse screen sizes with WP 7.5. But does the end user really care who's fault it is? We've come to expect effective resolutions greater than 300dpi, which is the point at which we can truly forget that we're even looking at pixels, and the Titan falls well short of that.

On the other hand, resolution isn't everything and the Titan's Super LCD display actually has a lot going for it. For a start, it's a higher quality panel than the



one used in some HTC handsets like the Sensation and Trophy. Whereas those handsets would look slightly washed out when viewed at anything other than head-on, the Titan's brightness and color rendition remains consistent even from extreme angles. At the optimum angle, the blacks look deep, the colors look rich and saturated in keeping with the WP style, and photos and video come across absolutely fine. It's not Super AMOLED, but should satisfy the majority of users.

Camera

Just like the display, the camera unit in the Titan is also significantly better than some of HTC's other recent models. Everything about it is faster, smoother and more intelligent in how it deals with automatic focus and exposure. The dedicated camera button is tactile and responsive, the software gets into gear fast and settings are readily accessed and altered. We love the fact that you can actually hear the whir of the autofocus shifting the lens inside the camera — it tells us it's a big unit.

The f/2.2 maximum aperture really does make a difference with low-light performance. We took a shot in our

kitchen, which was poorly lit with a single main energy-saving bulb, and we were blown away by the quality of the skin tones and the lack of noise. Overall image quality was also aided by sensible jpeg compression, which generally reduced our eight megapixel images to somewhere between 1MB and 1.3MB. We'd still rather have control over the level of compression, rather than HTC deciding for us, but at least this camera doesn't ruin images by pulping them into a 600KB mess — like the Sony Ericsson Xperia Neo does, for example.

The same applies to the 720p video: a one-minute clip was generally compressed to around 80MB, which preserves just about enough information to make it watchable on a TV or desktop, even during fast pans and wobbles. In comparison, a one-minute 1080p clip from the HTC Sensation XE is compressed down to a mere 65MB, which looks terrible and goes to show just how irrelevant video resolution is unless you get a higher bitrate to match. Another key upside to the Titan's video recording is that it adjusts auto-exposure smoothly and relatively slowly, as opposed to the sudden switches we saw in the Sensa-

tion XE, which means videos are less jarring when the light changes.

The camera software lives up to the promise of the hardware, with a whole range of clever touches from Microsoft and HTC. For example, when you're scrolling through photos and you reach the end of the camera roll, it automatically switches to camera mode, as if to say

"go on, take another one." Plus, you'll find HTC's Panorama feature in there, which is incredibly fun and easy to use and gets some decent results too. The only problem we had was that sometimes OS X failed to recognize the proper orientation of shots we'd taken on the Titan — but then it's perhaps too much to expect harmony

between rivals. (Incidentally, the Windows Phone Connector icon on the OS X dock is indisputably ugly.)

Unlike HTC's pre-Mango Windows Phone handsets, the Titan also has a front-facing camera. It has typically poor resolution and dynamic range but it's good to have it — even though there's still none of our promised Skype action. Sure, there's Tango, but we had no one to test it with and frankly, who's got the energy? We'd rather just wait for the app that everyone already uses.

Software

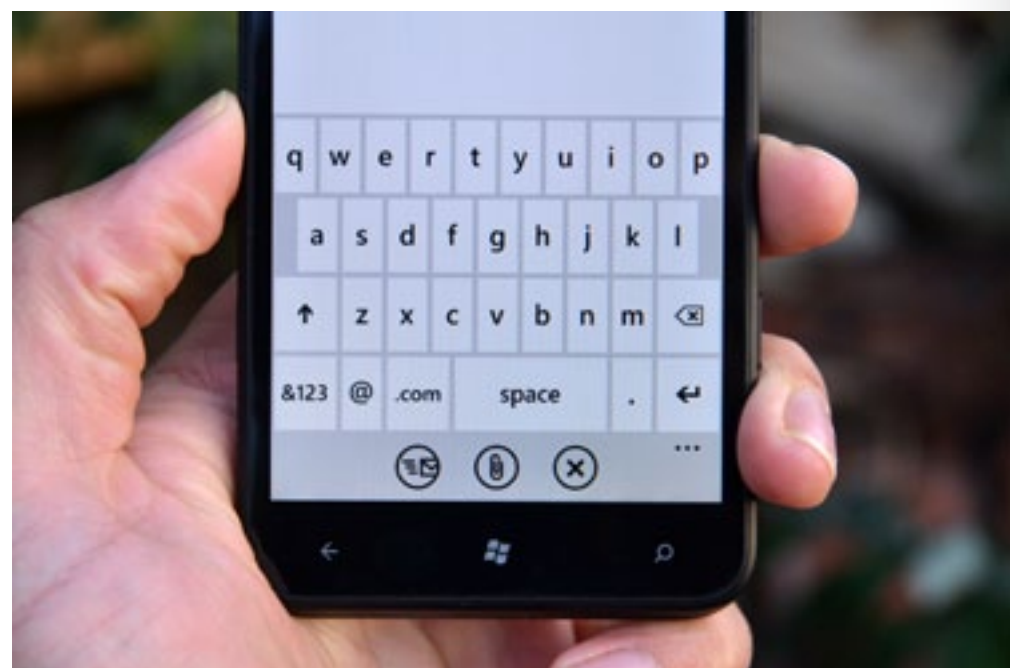
The Windows Phone OS is an amazing experience at this screen size. Sure, we don't have the resolution needed to cram loads of shrunken live tiles into our home screen, but that's not what this OS is about. The overall aesthetic is one of minimalism, boldness

and space to breathe, and spreading those tiles and apps over 4.7 inches takes this to another level. We have never felt so calm and relaxed when using a smartphone. Whether we're searching for media, loading up Bing to recognize a music track, or bashing out an email, the experience is serene.

The huge keyboard might look like a series of simple rectangular blocks, each with a single character in the middle, but it's actually a triumph of design — and just about the exact opposite of the busy mess that handles text entry in HTC's proprietary Sense UI on its Android devices. As soon as you start entering your login details to connect up to your email accounts, Twitter and so on, you notice something totally unexpected: you're no longer hitting backspace all the time. The button press somehow always ends up being precisely the button you want to press, and it's a breath of fresh air. We're not

Sure, there's Tango, but we had no one to test it with and frankly, who's got the energy? We'd rather just wait for the app that everyone already uses.

going to start writing full-length feature articles on the Titan, but in an emergency we probably could. Now, there are many times when the serenity breaks down due to bugs in the software. We've been over the key weaknesses of Mango in our full review of the updated OS, but we can't resist mentioning a few more minor issues here too. You'll be surfing the net and suddenly realize that the 'back' button takes you back to the home screen rather than to the previous page (apparently the back button was deliberately made non-context sensitive in the Mango update). You'll be typing in a 'Name' field to register an email account when you realize that it doesn't capitalize the first letter, and the 'Email' field doesn't present you with the @ symbol. You'll try to connect to the Marketplace only to get some random error number, even though you have a strong WiFi signal and you connected fine just a few minutes ago. When you finally gain access, you'll discover that the Search button is no longer context sensitive and instead of searching the Marketplace it always transports you to Bing. You'll finally get over the general dearth of good apps and decide to purchase one, only to discover that you can't add credit card details because a few decades ago you registered your first ever Hotmail account in a different country. (If this happens to you, you'll have to reset the phone and create a fresh Windows Live account with your current home country, and then add your main account back in as a secondary account.) It's obvious that



The combination of the minimal design of WP 7.5 Mango and the Titan's large screen make for a smooth user experience.

this OS is still having teething problems, and they can be infuriating — but they could all be rectified in future updates, and we're optimistic that they will.

We don't want to go out on a sour note, because it just wouldn't be fair. The fact is, we've used Windows Phone on a range of handsets by now, but the big and bold Titan is the first that's really allowed us to tune in to what the software designers at Microsoft have been trying to achieve, and how they want to differentiate themselves from the others. Aesthetically speaking, we sometimes think of Android as a house that

you build yourself: the base materials are relatively neutral, but there's plenty of scope for personalization in the way you fit them together. Meanwhile, iOS is like somebody else's house, built by a super-creative person with strong opinions who really doesn't care if you love it or hate it. So what about Windows Phone? Well, on the Titan's glorious display, it too feels like a house built by somebody else — but this time it's the handiwork of someone whose primary goal is to make you happy. You'll notice neat little features that you might have missed on a smaller screen, like the fact that you can read all your notes on the Notes app's corkboard without squinting or having to open them up, because the text is just about large enough even despite the poor resolution. Animated tiles remain animated even while you're scrolling down the home screen — subtle but delicious.

Wrap-up

Of all the different handsets that pass through our hands, many are good, some are bad, but there's only very few that surprise us. The Titan can certainly count itself among that standout minority, thanks to the way its oversized display, superb camera and overall build quality jibe so well with the generally slick and wonderful Windows Phone OS.

Not all the surprises are positive, though. The WVGA panel delivers poor pixel density, the 16GB of flash storage is inexplicably non-expandable and the lack of apps and occasional bugginess of

BOTTOMLINE

HTC Titan

£480 (\$750) *SIM-free*


PROS

- Big display is a good match for this OS
- Touchscreen keyboard makes typing painless
- Build quality is almost perfect
- Brilliant camera for both stills and video

CONS

- Usable storage maxes out at 12.6GB
- WP 7.5 still has a few bugs and a shortage of apps

This phone is not for the faint-hearted, but its build quality, screen size and camera make it the best Windows Phone on the market — at least for now.

the OS may all be bothersome, depending on your priorities and temperament. However, if you're ready to make room in your pocket for a phone this big, and room in your heart for a fledgling OS that occasionally requires some patience, then you will love the Titan. 

Sharif is a British tech journalist with ten years' experience filming and reporting news for the BBC and other broadcasters.



review

ASUS Zenbook UX31

BY DANA WOLLMAN

It was just last week that we got to take home the Acer Aspire S3, the first Ultrabook to go on sale here in the States. Unfortunately, it doesn't live up to the pillars laid out by Intel: its performance trails similar machines, its battery craps out early and the design, while portable, is too chintzy to make it a bellwether for skinny Windows laptops. Our verdict, in a sentence, was that you'd be better off getting a MacBook Air, or at least considering other Ultrabooks — namely, ASUS' line of Zenbooks.

As it turns out, one showed up on our doorstep just a few days later. In many

ways, the UX31 is everything the S3 is not: it has a gorgeous all-metal design and comes standard with an SSD and 1600 x 900 display (not to mention, a case and two bundled adapters). And with a starting price of \$1,099, it undercuts the entry-level (and similarly configured) MacBook Air by two hundred bucks. So is this the Ultrabook we've all been waiting for? We suggest pouring yourself a large beverage and settling into a comfy chair. We've got a lot to say on the subject.

Look and feel

It's *way* too easy to dismiss Ultrabooks



as MacBook Air wannabes. And yet, while the UX31 adds just enough pizzazz so that you'd never mistake it for Apple's wafer-thin lappie, it is the most Air-inspired contender we've seen so far. Mostly, it's that all-metal build, spacious, buttonless trackpad and razor-thin silhouette that whittles down to some seriously sharp edges. In fact, if you have a gander at our comparison galler, you'll see more of a similarity between the Air and UX31 than the S3, which tapers, but in a less pronounced way. Still, while they're both swaddled in aluminum, the 2.9-pound UX31 feels denser than the 2.96-pound Air. (The S3 weighs a smidge more, at three pounds, but we couldn't for the life of us

tell the difference when we held that in one hand and the UX3 in the other.)

Now that we've acknowledged that fruity 800-pound Gorilla in the room, we just have to say... the UX31 is stunning in person. Here at Engadget, we see more products in a week than we have time to review and in general, it behooves us to take a detached, almost clinical approach to handling gadgets, lest we get distracted by the toys piled high on our desks. With the UX31, though, we couldn't help but feel struck by the tremendous craftsmanship. It just feels like an exceptionally solid, well-made product. The dark gray, metal lid has a pattern of etched concentric circles that lends it a modern,

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industrial look, backed up by a brushed aluminum deck and smooth metal keys. Even the bezel feels tough, while the lid is markedly sturdier than the S3's.

In addition to the design, though, ASUS packaged this thing with care. In the box, you'll find a brown fabric carrying case with a matching pouch that contains USB-to-Ethernet and USB-to-VGA adapters. As we were sifting through all this, another Engadget editor saw what we were doing and stopped to say this was a good-looking machine, and that those carrying cases weren't too shabby, either. Then again, back in 2008 ASUS bundled the leather-clad U2E with a Bluetooth mouse and carrying case, so we can't say we're too surprised the company gave us a generous helping of extras.

But — and there is a but — we wish ASUS didn't slap branding on it (and in a script font, no less!). Okay, so “UX31

Series Ultra Slim” isn't branding so much as the product name, but why does it have to be so prominent? And in such a frou-frou font? It's true, we're generally against gratuitous logos, but that font makes for an oddly frilly touch on what's otherwise a clean design.

Secondly — and this is a more serious gripe — this is the only Windows-based Ultrabook we know of that doesn't have an HDMI port. Acer, Lenovo and Toshiba all put one on theirs, but this just has mini-HDMI and mini-VGA ports. Yeah, we'll take that VGA adapter and bet some folks in the PowerPoint crowd will appreciate it, but basically, anyone who wants to hook this thing up to their TV to stream *Breaking Bad* from Netflix is going to have to supply their own mini-HDMI-to-HDMI cable (we're seeing them for less than three bucks on Amazon).

Completing our tour around the edges, you'll find a USB 2.0 port on the left side, along with an SD / MMC card reader and a dual headphone / mic port. Over on the right you'll find those mini-HDMI and mini-VGA ports, along with a USB 3.0 socket that promises faster charging of USB-powered gadgets.

Keyboard and trackpad

The thing about the UX31's metal keys is that they ultimately look better than they feel. Now it's true, this keyboard is as sturdy as it seems, and the keys have a not-too-slippery finish that feels just right beneath the fingers. They even make a quiet, low-pitched sound —



always a marker of sound build quality. And yet, we didn't do our best typing here. Like the S3's keys, these just don't have enough travel. As we typed, the keys often failed to register our presses if we moved too fast or dug our fingers in too lightly. We made fewer errors when we made a concerted effort to press keys firmly before moving on, but what experienced touch typist wants to do that? We slugged through, ultimately typing the bulk of this review on it, but man, did we make a lot of spelling errors — ironic, in a way, given that the Enter, Backspace and Right Shift keys are all amply sized. (Tab, Caps Lock, left Shift and arrow keys are tiny, but for whatever reason we found this layout less cramped than the S3's.)

The UX31's keyboard also isn't backlit, which should be a strike against it when people are deciding between this and the MacBook Air.

Before we even started playing with the UX31, we received a note from an ASUS rep, asking us to update the touchpad's driver. We can see why. At that time, the trackpad was so jumpy, so imprecise that it had the potential to hamstring the entire laptop. Fortunately, after we removed the driver and installed version 9.1.7.7 in its place, we noticed a huge boost in usability.

Still, it could use more fine-tuning. Even now, we don't always feel like we have complete control over the cursor, and the touchpad sometimes registers left clicks as right ones. (Thankfully,



you can sidestep this by double tapping to right click.) Throughout our testing, highlighting text felt like a chore, and we sometimes selected text by accident when we only meant to drop the cursor somewhere. If you tend to rest both your thumb and index finger on the trackpad, you'll feel these bugs keenly, though we had less of a problem when we rested just our index finger on the pad. Not that any of you should have to change the way you use a touchpad.

The good news is that ASUS is well aware of the trackpad's lingering kinks, and is working toward a fix. In fact, a rep told us we could expect a driver update next week. So sit tight, early adopters.

Display and sound

Just when we had resigned ourselves to 1366 x 768 resolution on 99.9 percent of the 13-inch laptops we test, ASUS goes and unveils the UX31, which comes standard with 1600 x 900 pixels. That boost gave us plenty of space to scroll through web pages and documents, but it also made for some crisp movie playback. At one point during our testing, we played the 1080p trailer for the new Sherlock Holmes movie and



were able to catch all sorts of detail — puffs of smoke, the stubble on Robert Downey Jr.'s weathered face. Much to our surprise, the viewing angles are also impressive. Sure, if you watch from the sides you'll see the contrast ratio become slightly more exaggerated, but you can at least follow along with ease. Even with the lid dipped forward slightly we could make out the action on-screen — something we can't say about every laptop we review.

ASUS also paired that bright, sharp panel with speakers powered by Bang & Olufsen's ICEpower technology. Though the speaker chambers are hidden in the chassis, believe us when we say they push out some surprisingly loud sound.

... That startlingly good sound underscores a broader truth about the UX31: this skinny wisp of a laptop is, indeed, robust enough to be someone's primary machine.

Even at the median setting yours truly was good to go for a one-woman dance party, but we're sure that if we invited a few friends to join in, the max setting would have helped O.D.B and Mr. Notorious B.I.G. carry on over the din.

As ASUS explains it, the sound is ported through the hinge, with bass, specifically, passing through the upper keyboard area. The good news is that you'll get lots of sound and not much fury: the quality is minimally tinny — at least for a laptop — and that richness doesn't get distorted when you crank the volume to the top setting. The truth is that booming sound might not have made our shortlist of things we wanted to see in Ultrabooks (not ahead of portability and battery life, anyway), but we are, of course, delighted to have it anyway. Also, come to think of it, that startlingly good sound underscores a broader truth about the UX31: this skinny wisp of a laptop is, indeed, robust enough to be someone's primary machine.

Performance and graphics

The entry-level configuration we tested sports a 1.7GHz Core i5-2557M proces-

sor, 4GB of RAM and a 128GB ADATA SandForce SF2281 solid-state drive. That drive claims max read speeds of 550 MB/s and top write speeds of 550 MB/s. Indeed, when we ran the benchmark ATTO, simulating a 1GB transfer, our read / write rates peaked at those numbers. Needless to say, that's leaps and bounds ahead of what you'll get with the Aspire S3, which has a 320GB HDD for accessing files and 20GB of solid-state storage for storing the OS. In that same test, the S3 reached read speeds of about 80 MB/s and max write speeds of roughly 75 MB/s. While the S3 booted in 45 seconds, the UX31 was consistently up and running in just 16. The UX31 also resumes from sleep in about two seconds, as promised (the S3 does the same). Through it all, the UX31 mostly remained cool and quiet, though it grew noisy and warm after playing a short 1080p trailer in Quicktime.

And that's not all. If benchmarks are any indication, the UX31 matches — and sometimes bests — the Air's performance. In PCMark Vantage, for instance, it managed an impressive score of 10,218, compared with 9,484

COMPUTER	PCMARK VANTAGE	3DMARK06	BATTERY LIFE
ASUS Zenbook UX31 (1.7 GHz Core i5-2557M, Intel HD Graphics 3000)	10,508	4,209	5:41
Acer Aspire Ultrabook S3 (1.6 GHz Core i5-2467M, Intel HD Graphics 3000)	5,367	3,221	4:11
13-inch, 2011 MacBook Air (1.7 GHz Core i5-2557M, Intel HD Graphics 3000)	9,484	4,223	5:32 (Mac OSX)/ 4:12 (Windows)
Samsung Series 9 (1.7 GHz Core i5-2537M, Intel HD Graphics 3000)	7,582	2,240	4:20

Notes: the higher the score the better. For 3DMark06, the first number reflects score with GPU off, the second with it on.

for the Air. In 3DMark06 it notched 4,171, while the Air landed a similar score of 4,223. Frankly, we're not surprised the two are well-matched. As soon as we heard the UX31 would have all-flash storage and the same graphics card and 4GB of memory, we had a suspicion they'd play in the same league.

You should know that the UX31 comes with two preset Power2Go power management settings — battery saving and entertainment — and even when the machine is plugged in, benchmark scores vary wildly depending on which profile you choose. That PCMark Vantage score of 10,218 fell to 5,032 in battery saving mode, while its score of 4,171 in 3DMark06 dropped to 1,528. According to ASUS, that's because the battery saving mode essentially disables Turbo and throttles the GPU to near idle speeds. Additionally, we ran these tests with the balanced Windows power plan enabled, and saw scores similar to what we got in the Power2Go entertainment mode.

With those power settings, the UX31 notched 10,508 in PCMark Vantage and 4,209 in 3DMark06. Since all of our laptop benchmarks assume that balanced power plan, these are the scores we chose to use in our chart below.

In any case, since the machine comes set to Power2Go's battery saving profile, you should be sure to choose entertainment mode or tinker with the advanced settings if you really want screaming performance. Also, you can override the Power2Go utility by going into Windows power settings, clicking "Show additional plans" and selecting a stock power management profile.

Battery life

Now this is more like it. After testing the S3, which lasted little more than four hours, we were sure another Ultrabook could do better. Happily, we were right: the UX31 held out five hours and 41 minutes in our standard battery rundown test, which entails loop-

ing the same movie off the hard drive with WiFi enabled and the brightness fixed at 65 percent. That's on par with the Air, which managed a similar five hours and 32 minutes out of the box in its native Mac OS X (in Windows, it lasted four hours and twelve minutes — almost exactly the same runtime as the Aspire S3). That's also in line with ASUS' own expectations — a rep confirmed that the company's engineers are seeing almost seven hours with light use, and a little less than six with video streaming (again, to be fair, we play our movie off of the internal drive).

Software

The UX31 comes with a raft of pre-installed software, but for the most part, these are ASUS' own apps that go unseen unless you actually need them. These run the gamut from Live Update to a power management utility to the software used for facial recognition. Again, a non-invasive bunch, with the one exception being the company's registration page, which pops up as soon as you boot up.

As far as third-party apps go, you will see a trial version of Microsoft Office 2010 — a staple on Windows laptops, really — and Trend Micro Titanium Internet Security. In general, we're not opposed to OEMs putting some kind of starter security software on there so that people are protected out of the box, but we have to say that Trend Micro's suite, in particular, ran so discreetly we forgot it was there.

Configuration options and the competition

The UX31 is available in three configurations. We tested the \$1,099 entry level model, which, again, has a Core i5-2557M processor, 4GB of RAM and a 128GB SATA III drive. For \$1,349, you can get it with the same processor and a larger 256GB drive. Lastly, the top-end \$1,449 configuration combines a 256GB drive and a Core i7-2677M CPU. Across the board, you'll get 4GB of RAM.

For what it is, it's aggressively priced. Now it's true, we were all expecting Ultrabooks to ring in at less than \$1,000 — à la the Aspire S3 — but considering the entry-level UX31 has better specs than the base MacBook Air and undercuts it by two hundred dollars, it's a pretty sweet deal. Allow us to explain: both laptops have a 1.7GHz Core i5 processor, 4GB of RAM and 128GB of solid-state storage, though the UX31 packs a SATA III drive, in particular. The Air's 1440 x 900 display is lower-res, but then again, it's also indisputably gorgeous.

On the other hand, if you opt for an Air you'll get a comfier keyboard and a more precise trackpad. And in terms of ports, the two are well-matched: while the Air has a Thunderbolt port, the UX31 has mini-HDMI and mini-VGA. However, you'll forgo HDMI — present in Toshiba and Lenovo's Ultrabooks offer.

For what it's worth, the UX31 also includes a case and two adapters, though you'd be crazy if you let that decide your purchasing decision.

On the lower end, we already know that



Acer's \$899 S3 is the least expensive deal in town — and that you'll be giving up design flair, long battery life and fast transfer rates. So while you'll be paying the lowest price for an Ultrabook, you won't be getting the best deal, per se.

Then there are the Ultrabooks we haven't tested yet. If you're hemming and hawing over the UX31, you might want to consider the Toshiba Portege Z830 and the Lenovo IdeaPad U300s — both have 13-inch displays (albeit, with 1366 x 768 resolution), USB 3.0 and HDMI output. Naturally, we're curious to see how these stack up, but we can't in good faith say much now, other than that they, too, look promising.

Wrap-up

After the first Ultrabook left us feeling lukewarm, we grew hopeful that maybe, just maybe, ASUS' Zenbooks would get it right. While the S3 has little more to offer than a low price, the UX31 has an arresting design and SATA III SSD that

promises superior battery life and performance. And it still manages to undercut the Air by two hundred dollars, even though the two have similar specs.

So is the UX31 everything we thought it would be? For the most part, yes. With the exception of one nagging design quirk, it's as stunning in person as it is in the press shots. It's fast — faster than the Air, arguably — and its battery life is comparable. It offers the highest-res display we've seen in an Ultrabook and the sound quality is disarmingly good. If you can deal with the shallow keyboard and have faith that ASUS will find its way with the touchpad, we have a feeling you'll be very happy with this guy. It's true, we still need to take a closer look at what Lenovo and Toshiba have to offer, but for now this is indeed the Ultrabook to beat.

Dana Wollman is Reviews Editor at Engadget, a marathoner, lover of puns and a native Brooklynite.

BOTTOMLINE

ASUS Zenbook UX31

\$1,099+

PROS

- Long Battery Life
- Striking design
- Strong performance, blazing SSD
- Crisp 1600 x 900 display, robust speakers

CONS

- Flaky trackpad
- Keyboard can be frustrating

The UX31 is the new Ultrabook to beat, thanks to its long battery life, fast performance and welcome extras like a high-res display and Bang & Olufsen speakers.

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They're Alive!

Your favorite Frankengadgets

We asked our readers to come up with the creepiest, kookiest Frankengadget mash-ups their sick minds could muster, and suffice to say, they didn't disappoint. We saw a smartphone with an interchangeable lens, a stuffed bear / iPod dock that looked like it came out of Chucky's toy chest and a whole lot more. After whittling it down to the top five, we let the people decide who had the sickest Frankengadget around. Herewith are your winners.



5. "iBeastSound" by Chris Ferd / 474 votes (4.6%)



4. **"A monster is born" by Jon Wofford / 604 votes (5.9%)**





3. "iFrankDS" by Johnny Blaze / 2,376 votes (23.1%)



2. **“Multi-Boot” by Adam Nathan** / 3,112 votes (30.2%)





1. “Interchangeable Lens Phone” by Edgar (qbix) / 3,732 votes (36.2%)





preview

Nokia Lumia 800

BY ZACH HONIG

Oh, Nokia. Earth mother and founding father of the mobile industry. At last, we have your newest creation nestled amidst our clammy palms: a 3.7-inch slab of polycarbonate Windows Phone wonderment, fronted by a ClearBlack AMOLED display. Has that sweet breeze off the Nokianvirta River worked its special magic? Or is this just another Windows Phone? Well, first impressions are that it... feels just like an N9.


Nokia is calling this device the “first real Windows Phone,” a claim that we think other manufacturers are going to have a bit of a beef with, but we’d certainly say this is among the best we’ve yet had the opportunity to fondle. If you’re familiar with the N9 you’ll know the basics of the story here, a polycarbonate shell that feels very nice in the

hand and, perhaps more importantly, won’t show scratches as clearly as painted metal or plastic exteriors. That baby blue (or magenta) you see? It’s that same color all the way through — there’s no paint here to chip or scratch.

Up top, doors flip open to reveal the micro-USB charger port and the SIM slot, doors that fit so well you’d barely know they’re there. A 3.5mm headphone jack is up on the top as well. That’s really about all there is for ports. The right side of the phone is adorned with a volume rocker and power button, and the left is completely bare — just super sleek, curved polycarbonate. There’s a speaker right there on the bottom as well.

The front is covered by that 3.7-inch 800 x 480 ClearBlack AMOLED dis-

play, which rests under ever so slightly curved glass, giving a raised effect. This is Gorilla Glass, so hopefully it being exposed in this way won't danger its visual purity. Needless to say, it looks as good as the display on the N9 — it's quite simply gorgeous. There's the same eight megapixel camera as we saw on the N9, complete with f/2.2 aperture lens and 720p HD video with continuous autofocus. Overall the Lumia 800 looks quite incredible — this is some impressive

hardware — but will Nokia's latest flagship help drive some serious Windows Mobile market share? We shouldn't have to wait long to find out. 

Zach is a Senior Associate Editor and heads up Engadget's features content. He's also a lifetime lover of everything aviation and photography.

Tim Stevens and Myriam Joire contributed to this report.

everything you need to know about the Nokia Lumia 800

Price

\$585+

Operating System

Windows Phone 7.5 Mango

Dimensions

height: 116.5mm
width: 61.2mm
depth: 12.1mm
weight: 142 grams

Memory

512MB RAM

Storage

16GB Internal

Processor

1.4GHz Single-core Qualcomm MSM8255

Bands

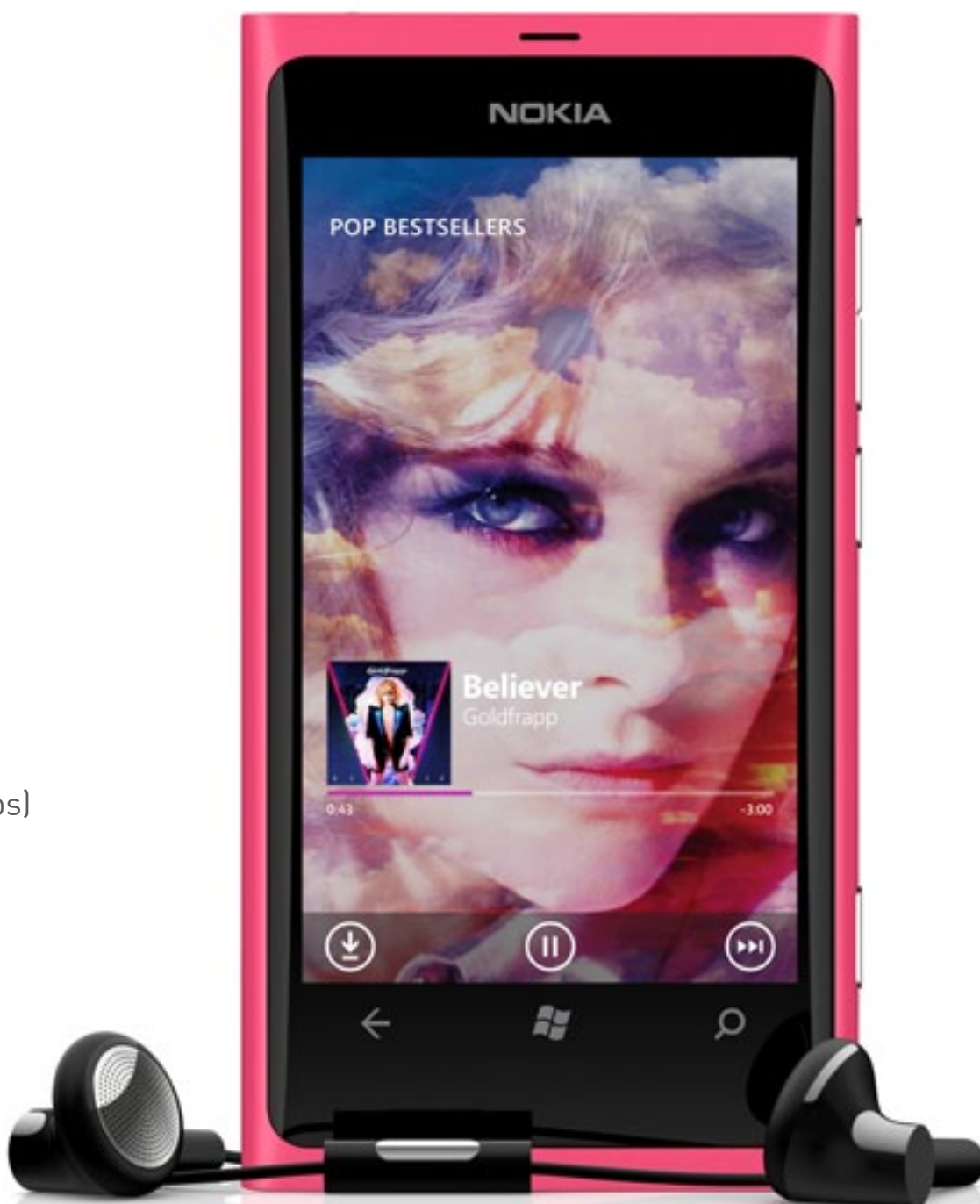
quadband UMTS / HSPA (14.4Mbps)
quadband GSM

Display

3.7-inch curved AMOLED
Gorilla Glass
800 x 480

Camera

rear-facing
8 megapixel
720p video recording at 30fps





the last word




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